

REMARKS

The specification is amended herein to change the title. Claim 1 is amended by incorporating the subject matter of claim 16 and claim 29 is amended into an independent claim by incorporating the subject matter of claims 1, 23 and 28. Claims 2-28 and 30-35 are canceled herein. Claims 36-61 were previously canceled. No new matter is presented.

Accordingly, upon entry of the Amendment, claims 1 and 29 will be all of the claims pending in the application.

I. Response to Claim Rejections under 35 U.S.C. § 103

Claims 12 and 18-21 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Matsumura (WO 02/84408 based on US 2004/0132920 as an English translation) combined with Tajima (US 5,858,596) and Uchida (US 5,738,964).

Claim 32 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Matsumura (WO 02/84408 based on US 2004/0132920 as an English translation) combined with Tajima (US 5,858,596) and Uchida (US 5,738,964) and further combined with Kurose (US 6,022,661) and Nakamura '537 (US 6,063,537).

Claims 1-6, 9, 10, 12, 14, 18, 20-23, 31 and 33-35 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Matsubara '689 (US 4,795,689) as evidenced by Matsubara '644 (US 4,940,644) combined with Tajima (US 5,858,596) and Uchida (US 5,738,964).

Claims 1, 2, 4-6, 8, 9, 12, 14, 18, 20-23, 31 and 33-35 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Matsubara '689 (US 4,795,689) as evidenced by

Matsubara '644 (US 4,940,644) combined with Tajima (US 5,858,596) and Uchida (US 5,738,964).

Claims 5-9 and 14 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Matsubara '689 (US 4,795,689) as evidenced by Matsubara '644 (US 4,940,644) combined with Tajima (US 5,858,596) and Uchida (US 5,738,964) and further in view of additional teachings of Matsubara '689.

Claims 23-26 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Matsubara '689 (US 4,795,689) as evidenced by Matsubara '644 (US 4,940,644) combined with Tajima (US 5,858,596) and Uchida (US 5,738,964) and further combined with Shimuzu (US 6,117,068) as evidenced by Ohba (US 6,653,040).

Claims 23 and 28 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Matsubara '689 (US 4,795,689) as evidenced by Matsubara '644 (US 4,940,644) combined with Tajima (US 5,858,596) and Uchida (US 5,738,964) and further combined with Okada (US 6,146,802).

Claims 23-25 and 27 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Matsubara '689 (US 4,795,689) as evidenced by Matsubara '644 (US 4,940,644) combined with Tajima (US 5,858,596) and Uchida (US 5,738,964) and further combined with Shimuzu (US 6,117,068) as evidenced by Ogata (US 6,399,264).

Claim 30 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Matsubara '689 (US 4,795,689) as evidenced by Matsubara '644 (US 4,940,644) combined with Tajima (US 5,858,596) and Uchida (US 5,738,964) and further combined with Shirai (US 6,864,030).

Claim 32 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Matsubara '689 (US 4,795,689) as evidenced by Matsubara '644 (US 4,940,644) combined with Tajima (US 5,858,596) and Uchida (US 5,738,964) and further combined with Kurose and Nakamura '537.

Claim 1 is amended into an independent claim by incorporating the subject matter of claim 16, which is indicated as allowable. Claim 29, which is indicated as being allowable, is amended into an independent claim including the subject matter of claims 1, 23 and 28.

Therefore, the above rejections are obviated. Claims 2-15, 17-28 and 30-61 are canceled.

Accordingly, Applicants respectfully request withdrawal of the §103 rejections.

II. Response to Obviousness-Type Double Patenting Rejections

Claims 1-6, 8-15 and 17-22 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as allegedly being unpatentable over claims 3, 6-10, 20 and 22-26 of copending U.S. App. Ser. No. 10/474,753 in view of Tajima and Uchida.

Claims 23-26 and 31 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as allegedly being unpatentable over claims 3, 6-10, 20 and 22-26 of copending U.S. App. Ser. No. 10/474,753 in view of Tajima and Uchida and further in view of Shimuzu as evidenced by Ohba.

Claims 23-28 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as allegedly being unpatentable over claims 3, 6-10, 20 and 22-26 of copending U.S. App. Ser. No. 10/474,753 in view of Tajima and Uchida and further in view of Okada.

Claims 23-25 and 27 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as allegedly being unpatentable over claims 3, 6-10, 20 and 22-26 of copending U.S. App. Ser. No. 10/474,753 in view of Tajima and Uchida and further in view of Ogata.

Claim 30 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as allegedly being unpatentable over claims 3, 6-10, 20 and 22-26 of copending U.S. App. Ser. No. 10/474,753 in view of Tajima and Uchida and further in view of Shirai.

Claim 32 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as allegedly being unpatentable over claims 3, 6-10, 20 and 22-26 of copending U.S. App. Ser. No. 10/474,753 in view of Tajima and Uchida and further in view of Kurose and Nakamura '537.

Claims 34 and 35 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as allegedly being unpatentable over claims 3, 6-10, 20 and 22-26 of copending U.S. App. Ser. No. 10/474,753 in view of Tajima and Uchida and further in view of Akimoto (US 5,707,772).

Claim 1 is amended into an independent claim by incorporating the subject matter of claim 16, which is indicated as allowable. Claim 29, which is indicated as being allowable, is amended into an independent claim including the subject matter of claims 1, 23 and 28. Therefore, the above rejections are obviated. Claims 2-15, 17-28 and 30-61 are canceled.

Accordingly, Applicants respectfully request withdrawal of the obviousness-type double patenting rejections.

III. Allowable Subject Matter

In paragraph 2, claims 16 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As noted above, claim 1 is amended by incorporating the subject matter of claim 16 and claim 29 is amended into independent form, thereby obviating the objections.

Accordingly, Applicants respectfully request withdrawal of the objection to these claims.

IV. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

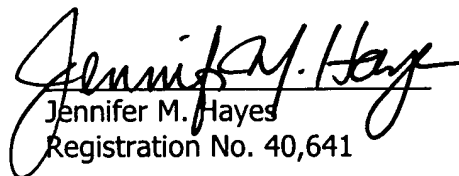
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